

Appl. No. 09/751,332
Amdt. Dated 10/06/2004
Reply to Office Action of May 6, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled).
2. (Currently Amended) The method of claim 21, wherein determining said transmission error factor comprises:
transmitting said one or more data packets; and

determining said transmission error factor based on a number of acknowledgement packets received in response to said transmitted one or more data packets.
3. (Currently Amended) The method of claim 21, wherein said transmission error factor depends on a number of errors occurring in the transmission of said one or more data packets for a given time period.
4. (Currently Amended) The method of claim 21, wherein said transmission error factor depends on clusters of transmission errors greater than sporadic transmission errors in the transmission of said one or more data packets.
5. (Currently Amended) The method of claim 21, wherein automatically adjusting said fragmentation threshold comprises:
comparing said transmission error factor to an upper threshold; and

decreasing said fragmentation threshold if said transmission error factor is above said upper threshold.

Appl. No. 09/751,332
Amdt. Dated 10/06/2004
Reply to Office Action of May 6, 2004

6. (Currently Amended) The method of claim 91, wherein automatically adjusting said fragmentation threshold comprises:

comparing said transmission error factor to a lower threshold; and

increasing said fragmentation threshold if said transmission error factor is below said lower threshold.

7. (Currently Amended) The method of claim 91, wherein automatically adjusting said fragmentation threshold comprises:

comparing said transmission error factor to an upper threshold;

decreasing said fragmentation threshold if said transmission error factor is above said upper threshold;

comparing said transmission error factor to a lower threshold; and

increasing said fragmentation threshold if said transmission error factor is below said lower threshold.

8. (Currently Amended) The method of claim 91, wherein automatically adjusting said fragmentation threshold comprises changing said fragmentation threshold by a fixed quantity each time said fragmentation threshold is adjusted.

9. (Currently Amended) A The method of claim 1, wherein automatically adjusting a fragmentation threshold for data transmissions between an access point and one or more associated wireless units via a wireless medium associated with a wireless network system including a wired backbone network, comprising:

determining a transmission error factor indicative of errors occurring in the transmission of one or more data packets between said access point and said one or more associated wireless units; and

Appl. No. 09/751,332
Amdt. Dated 10/06/2004
Reply to Office Action of May 6, 2004

automatically adjusting said fragmentation threshold based on said transmission error factor, said automatically adjusting of said fragmentation threshold comprises changing said fragmentation threshold by a divisional factor each time said fragmentation threshold is adjusted, wherein said fragmentation threshold depends on a pre-determined fragmentation threshold divided by said divisional factor.

10. (Original) The method of claim 9, wherein said pre-determined fragmentation is related to a maximum data packet size for transmission over said wired backbone network.

11. (Original) The method of claim 9, wherein said pre-determined fragmentation is related to a maximum data packet size for transmission over said wireless medium.

12. (Cancelled).

13. (Currently Amended) The access point of claim ~~12~~20, wherein said logic circuit in determining said transmission error factor is capable of:

transmitting said one or more data packets to said one or more associated wireless units;
and

determining said transmission error factor based on a number of acknowledgement packets received in response to said transmitted one or more data packets from said one or more associated wireless units.

14. (Currently Amended) The access point of claim ~~12~~20, wherein said transmission error factor depends on a number of errors occurring in the transmission of said one or more data packets for a given time period.

Appl. No. 09/751,332
Amdt. Dated 10/06/2004
Reply to Office Action of May 6, 2004

15. (Currently Amended) The access point of claim 1220, wherein said transmission error factor depends on clusters of transmission errors greater than sporadic transmission errors in the transmission of said one or more data packets.

16. (Currently Amended) The access point of claim 1220, wherein said logic circuit in automatically adjusting said fragmentation threshold is capable of:

comparing said transmission error factor to an upper threshold; and

decreasing said fragmentation threshold if said transmission error factor is above said upper threshold.

17. (Currently Amended) The access point of claim 1220, wherein said logic circuit in automatically adjusting said fragmentation threshold is capable of:

comparing said transmission error factor to a lower threshold; and

increasing said fragmentation threshold if said transmission error factor is below said lower threshold.

18. (Currently Amended) The access point of claim 1220, wherein said logic circuit in automatically adjusting said fragmentation threshold is capable of:

comparing said transmission error factor to an upper threshold;

decreasing said fragmentation threshold if said transmission error factor is above said upper threshold;

comparing said transmission error factor to a lower threshold; and

increasing said fragmentation threshold if said transmission error factor is below said lower threshold.

Appl. No. 09/751,332
Amdt. Dated 10/06/2004
Reply to Office Action of May 6, 2004

19. (Currently Amended) The access point of claim 1220, wherein said logic circuit in automatically adjusting said fragmentation threshold is capable of changing said fragmentation threshold by a fixed quantity each time said fragmentation threshold is adjusted.

20. (Currently Amended) An The access point of claim 12, wherein to communicate with one or more associated wireless units via a wireless medium to provide said one or more wireless units access to a wired backbone network of a wireless network system, comprising said a logic circuit into:

determine a transmission error factor indicative of errors occurring in the transmission of one or more data packets from said access point to said one or more associated wireless units;
and

automatically adjusting said a fragmentation threshold is capable of by changing said fragmentation threshold by a divisional factor each time said fragmentation threshold is adjusted, wherein said fragmentation threshold depends on a pre-determined fragmentation threshold divided by said divisional factor.

21. (Original) The access point of claim 20, wherein said pre-determined fragmentation is related to a maximum data packet size for transmission over said wired backbone network.

22. (Original) The access point of claim 20, wherein said pre-determined fragmentation is related to a maximum data packet size for transmission over said wireless medium.

23. (Cancelled).

Appl. No. 09/751,332
Amdt. Dated 10/06/2004
Reply to Office Action of May 6, 2004

24. (Currently Amended) The machine readable medium of claim 2331, wherein said software routine is capable of controlling said logic circuit in determining said transmission error factor to:

transmit said one or more data packets; and

determine said transmission error factor based on a number of acknowledgement packets received in response to said transmitted one or more data packets.

25. (Currently Amended) The machine readable medium of claim 2331, wherein said transmission error factor depends on a number of errors occurring in the transmission of said one or more data packets for a given time period.

26. (Currently Amended) The machine readable medium of claim 2331, wherein said transmission error factor depends on clusters of transmission errors greater than sporadic transmission errors in the transmission of said one or more data packets.

27. (Currently Amended) The machine readable medium of claim 2331, wherein said software routine is capable of controlling said logic circuit in automatically adjusting said fragmentation threshold to:

compare said transmission error factor to an upper threshold; and

decrease said fragmentation threshold if said transmission error factor is above said upper threshold.

28. (Currently Amended) The machine readable medium of claim 2331, wherein said software routine is capable of controlling said logic circuit in automatically adjusting said fragmentation threshold to:

compare said transmission error factor to a lower threshold; and

increase said fragmentation threshold if said transmission error factor is below said lower threshold.

Appl. No. 09/751,332
Amdt. Dated 10/06/2004
Reply to Office Action of May 6, 2004

29. (Currently Amended) The machine readable medium of claim 2331, wherein said software routine is capable of controlling said logic circuit in automatically adjusting said fragmentation threshold to:

compare said transmission error factor to an upper threshold;

decrease said fragmentation threshold if said transmission error factor is above said upper threshold;

compare said transmission error factor to a lower threshold; and

increase said fragmentation threshold if said transmission error factor is below said lower threshold.

30. (Currently Amended) The machine readable medium of claim 2331, wherein said software routine is capable of controlling said logic circuit in automatically adjusting said fragmentation threshold to change said fragmentation threshold by a fixed quantity each time said fragmentation threshold is adjusted.

31. (Currently Amended) A The machine readable medium of claim 23, wherein including a software routine for automatically adjusting a fragmentation threshold for data transmissions between an access point and one or more associated wireless units via a wireless medium associated with a wireless network system including a wired backbone network, said software routine is capable of controlling said a logic circuit into:

determine a transmission error factor indicative of errors occurring in the transmission of one or more data packets between said access point and said one or more associated wireless units; and

automatically adjusting said fragmentation threshold based on said transmission error factor to change said fragmentation threshold by a divisional factor each time said fragmentation threshold is adjusted, wherein said fragmentation threshold depends on a pre-determined fragmentation threshold divided by said divisional factor.

Appl. No. 09/751,332
Amdt. Dated 10/06/2004
Reply to Office Action of May 6, 2004

32. (Original) The machine readable medium of claim 31, wherein said pre-determined fragmentation is related to the maximum data packet size for transmission over said wired backbone network.

33. (Original) The machine readable medium of claim 31, wherein said pre-determined fragmentation is related to the maximum data packet size for transmission over said wireless medium.

34. (Currently Amended) A method of automatically adjusting a fragmentation threshold for data transmissions between an access point and one or more associated wireless units via a wireless medium associated with a wireless network system including a wired backbone network, comprising:

determining a transmission error factor indicative of errors occurring in the transmission of one or more data packets between said access point and said one or more associated wireless units; and

automatically adjusting said fragmentation threshold based on said transmission error factor, wherein said one or more data packets each have a finite time duration;

changing a data rate of the transmissions of said one or more data packets; and

automatically adjusting said fragmentation threshold in response to said data rate change of the transmission of said one or more data packets so that the finite time duration for said one or more data packets remains substantially the same.

35. (Original) An access point to communicate with one or more associated wireless units via a wireless medium to provide said one or more wireless units access to a wired backbone network of a wireless network system, comprising a logic circuit to:

determine a transmission error factor indicative of errors occurring in the transmission of one or more data packets from said access point to said one or more associated wireless units; and

Appl. No. 09/751,332
Amdt. Dated 10/06/2004
Reply to Office Action of May 6, 2004

automatically adjust a fragmentation threshold based on said transmission error factor, wherein said one or more data packets each have a finite time duration; and.

automatically adjust said fragmentation threshold in response to a data rate change of the transmission of said one or more data packets so that the finite time duration for said one or more data packets remains substantially the same.

36. (Original) A machine readable medium including a software routine for automatically adjusting a fragmentation threshold for data transmissions between an access point and one or more associated wireless units via a wireless medium associated with a wireless network system including a wired backbone network, said software routine is capable of controlling a logic circuit to:

determine a transmission error factor indicative of errors occurring in the transmission of one or more data packets from said access point to said one or more associated wireless units; and

automatically adjust a fragmentation threshold based on said transmission error factor, wherein said one or more data packets each have a finite time duration; and.

automatically adjust said fragmentation threshold in response to a data rate change of the transmission of said one or more data packets so that the finite time duration for said one or more data packets remains substantially the same.